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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/564,557

03/28/2006

Nobutaka Fujii

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EXAMINER

DAVIS, ZINNA NORTHINGTON

ART UNIT

PAPER NUMBER

1625

MAIL DATE

DELIVERY MODE

04/07/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/564,557	Applicant(s) FUJII ET AL.	
	Examiner Zinna Northington Davis	Art Unit 1625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 January 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>1/06; 07/06; 12/07</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

1. Claims 1-7 are pending.
2. The drawings filed January 13, 2006 have been accepted.
3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
4. Claim 3 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

At claim 3, the period should be at the end of the claim.

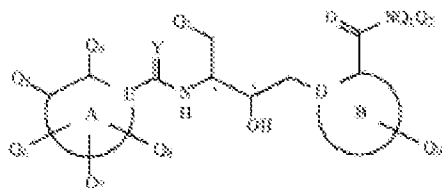
5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) The invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-6 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Kalish et al (Reference A, cited by Applicants).

Kalish et al. teach a class of pharmaceutical formulations which are useful for treating HIV infection and AIDS. See page 1. At page 3, the generic formula is disclosed as follows:



where

Q_1 and Q_2 are independently selected from hydrogen and substituted and unsubstituted alkyl and aryl, and Q_1 and Q_2 may form a ring with G_1 .

Q₂ is selected from mercapto and substituted and unsubstituted alkoxy, aryloxy, thioether, amino, alkyl, cycloalkyl, saturated and partially saturated heterocycle, and aryl.

Q_1-Q_8 are independently selected from hydrogen, hydroxyl, mercapto, nitro, halogen, $-O-J$, wherein J is a substituted or unsubstituted hydrolyzable group, and substituted and unsubstituted alkoxy, aryloxy, thioether, acyl, sulfinyl, sulfonyl, amino, alkyl, cycloalkyl, saturated and partially saturated heterocycle and aryl, and further wherein any one of Q_1-Q_8 may be a member of a spiro ring and any two of Q_1-Q_8 may together be members of a ring.

Y and G are independently selected from oxygen, $-\text{NH}$, $-\text{N-alkyl}$, sulfur, selenium, and two hydrogen atoms.

D is carbon or nitrogen.

E is carbon or nitrogen,

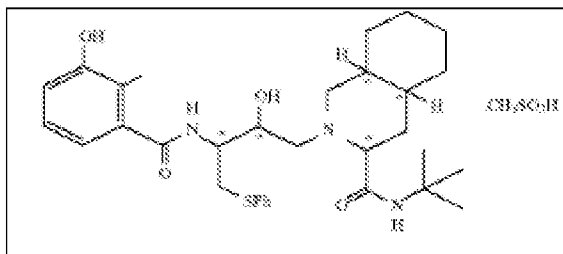
Q_1 is selected from hydrogen, halogen, hydroxyl, mercapto, and substituted and unsubstituted alkoxy, aryloxy, thioether, amino, silyl, and aryl, wherein Q_1 may form part of a ring.

A is a carbocycle or heterocycle, which is optionally further substituted.

and R is a carbocycle or heterocycle, which is optionally further substituted,

or a pharmaceutically acceptable salt thereof.

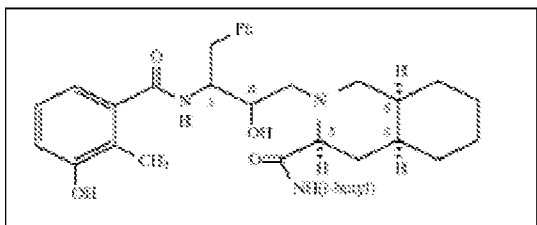
At page 17, lines 35-45, the following species is taught. See the compound depicted below:



and

at page 20, lines 30-40, the following species is taught. See the compound depicted below:

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The claims are fully met when R^1 is aryl, m is 1; and Y is S; R^1 is aryl and m is O.

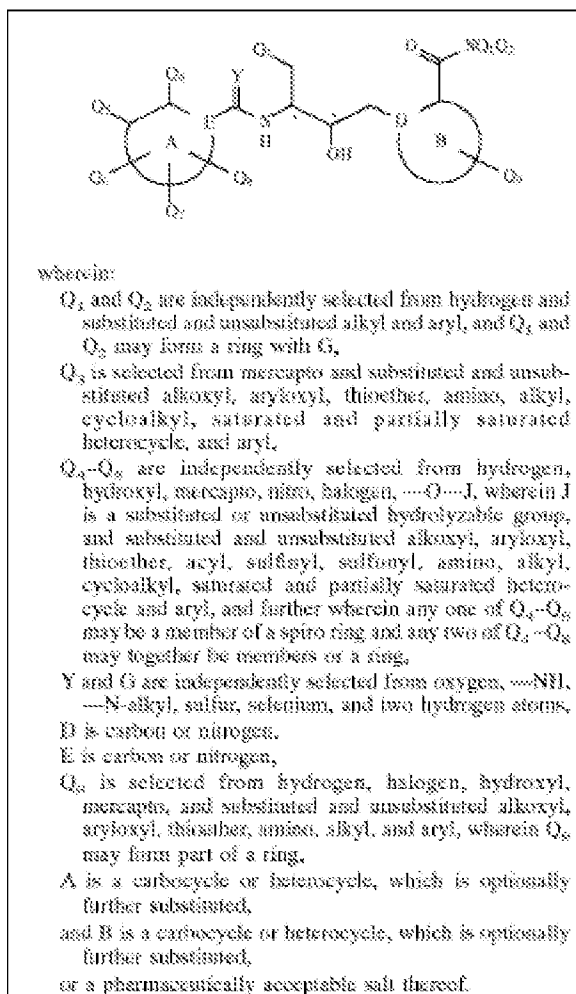
7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

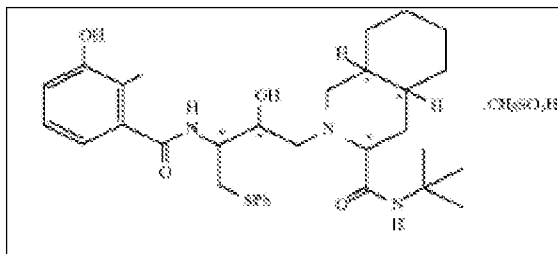
8. Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kalish et al (Reference A1, cited by Applicants) in view of Cinatl et al. (Reference C1, cited by Applicants).

Kalish et al. teach a class of HIV protease inhibitors. At page 3, the generic formula is disclosed as follows:

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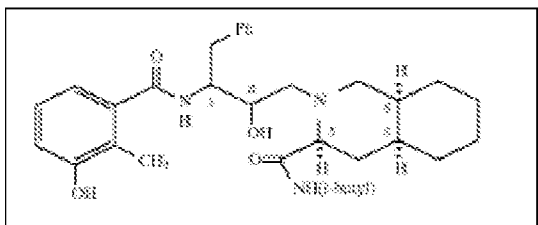


At page 17, lines 35-45, the following species is taught. See the compound below:



and

At page 20, lines 30-40, the following species is taught. See the compound depicted below:



The difference between the prior art compounds and the instantly claimed compounds is the intended use. The instantly claimed compounds are taught to be useful in the treatment of SARS. The prior art compounds are useful in the treatment of the HIV virus.

Cinatl et al. teach a class of antiviral compounds which are useful in inhibiting replication of the SARS virus. At page 1, 1st column, Cinatl et al state "Glycyrrhizin was the most active of the antiviral compounds..." As such, it would have been obvious to one of ordinary skill in the art to replace one antiviral compound for another in view of the expectation of similar pharmaceutical activity. Accordingly, the pharmaceutical agents and methods of treating SARS are deemed unpatentable therefrom.

9. The Information Disclosure Statements filed January 13, 2006, July 12, 2006, and December 17, 2007 have been considered.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Zinna Northington Davis whose telephone number is 571-272-0682.

11. The fax phone numbers for the organization where this application or proceeding is assigned are (571) 273-8300 for regular communications.

12. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for

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published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Zinna Northington Davis/
Zinna Northington Davis
Primary Examiner
Art Unit 1625

Znd
03.31. 2008